IB Docket 11-109
ET Docket -10-142

-----Original Message-----
From: Keith Peshak [mailto:keithpeshak@localnet.com]
Sent: Monday, January 30, 2012 12:31 PM
To: Jeremy Marcus; Robert Nelson; Geraldine Matise
Subject: IB Docket 11-109 and 10-142

Folks:

I require your assistance to have the following document placed into comment on 11-109 and/or 10-142 as appropriate.

What I wish to point out is that there have been many claims made about the endangerment of GPS, our only remaining PNT system, from terrestrial transmission in the 10L and 10H segments of the L band by LightSquared on ~40,000 cell towers for a new generation of wireless Internet service; few data. I wish by this document to provide independently verifiable data, by engineering calculation (2) and by provision of a production readily available filter. Yes, there is a filter that will provide 140 db of LightSquared attenuation, which should allow coexistence of the two services. Yes, you will have to redesign all GPS antenna elements for the GPS receivers. No, you will not like the size and cost. No, that will not materially change as other providers copy the technology. Finally, in the last paragraphs, I make our argument for proposing this technical solution, be it not a moral one.

I hope you will see to the docket submission for me, and I hope that each of you will study this paper. Even though dissertation from engineers is usually quite dry, I hope you will find this short paper enlightening.

Hopefully, you will understand what you, collectively, almost wrought; and will work to have DHS re-enable eLoran. We will have a back-up PNT system, which was just proven we need, and I can put the baroaided eLoran - ILS (ask the FAA what a category IIIc instrument landing system is) back in my airplane (I am also a commercial pilot).

Thank you.

From: Robert Nelson
To: Karl Kensinger; CurTrisha Banks;
Subject: FW: Addendum to comment
Date: Tuesday, January 31, 2012 7:14:45 AM

-----Original Message-----
From: keithpeshak@localnet.com [mailto:keithpeshak@localnet.com]
Sent: Tuesday, January 31, 2012 12:18 AM
To: Jeremy Marcus; Robert Nelson; Geraldine Matise
Subject: Addendum to comment

This is an addendum to my previously filed comment on IB docket 11-109 and/ or 10-142 as appropriate, the magic impossible filter bandpass characteristic (attached).

Yes, it is real. Yes, anyone can buy one now (http://www.imcsd.com). Yes, we put a shit load of effort into smaller and lighter and less precious metals - this is as good as it is likely to ever get.

Think of it like television. Back in the 1950s you licensed NTSC channels 2 and 5 in Green Bay, Wisconsin. Why not channels 3 and 4 and 6; since the lower band is 2 through 6? Because of something called db / decade. We just broke all of those laws of physics, don't ask for more.

B. Keith Peshak
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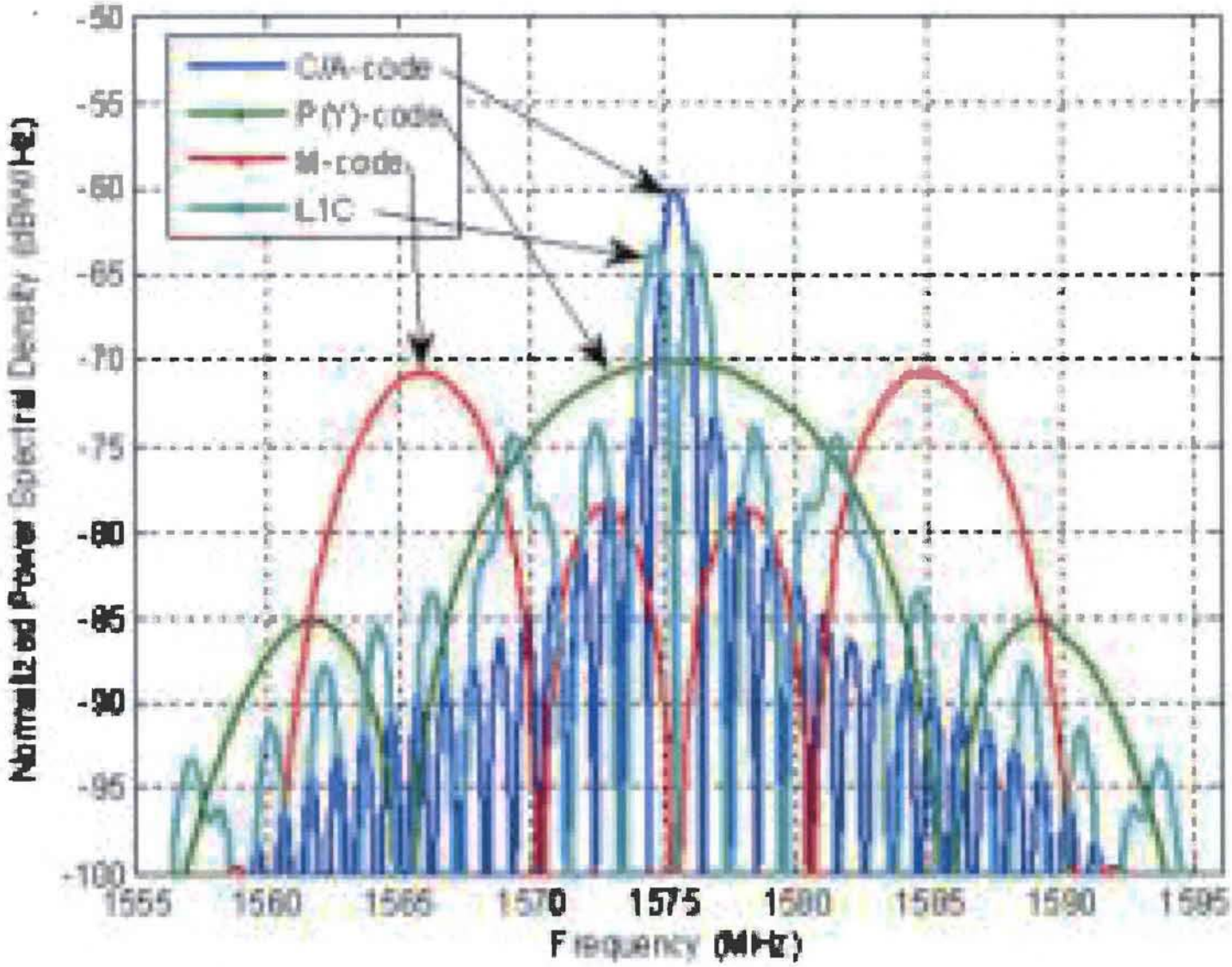

C/A-code
P(Y)-code
M-code
L1C
-50
-55
-60
-65
-70
-75
-80
-85
-90
-95
-100
1555
1560
1565
1570
1575
1580
1585
1590
1595
Frequency (MHz)

GPS Space and Control
Clock and Reaction Wheel
Performance Status

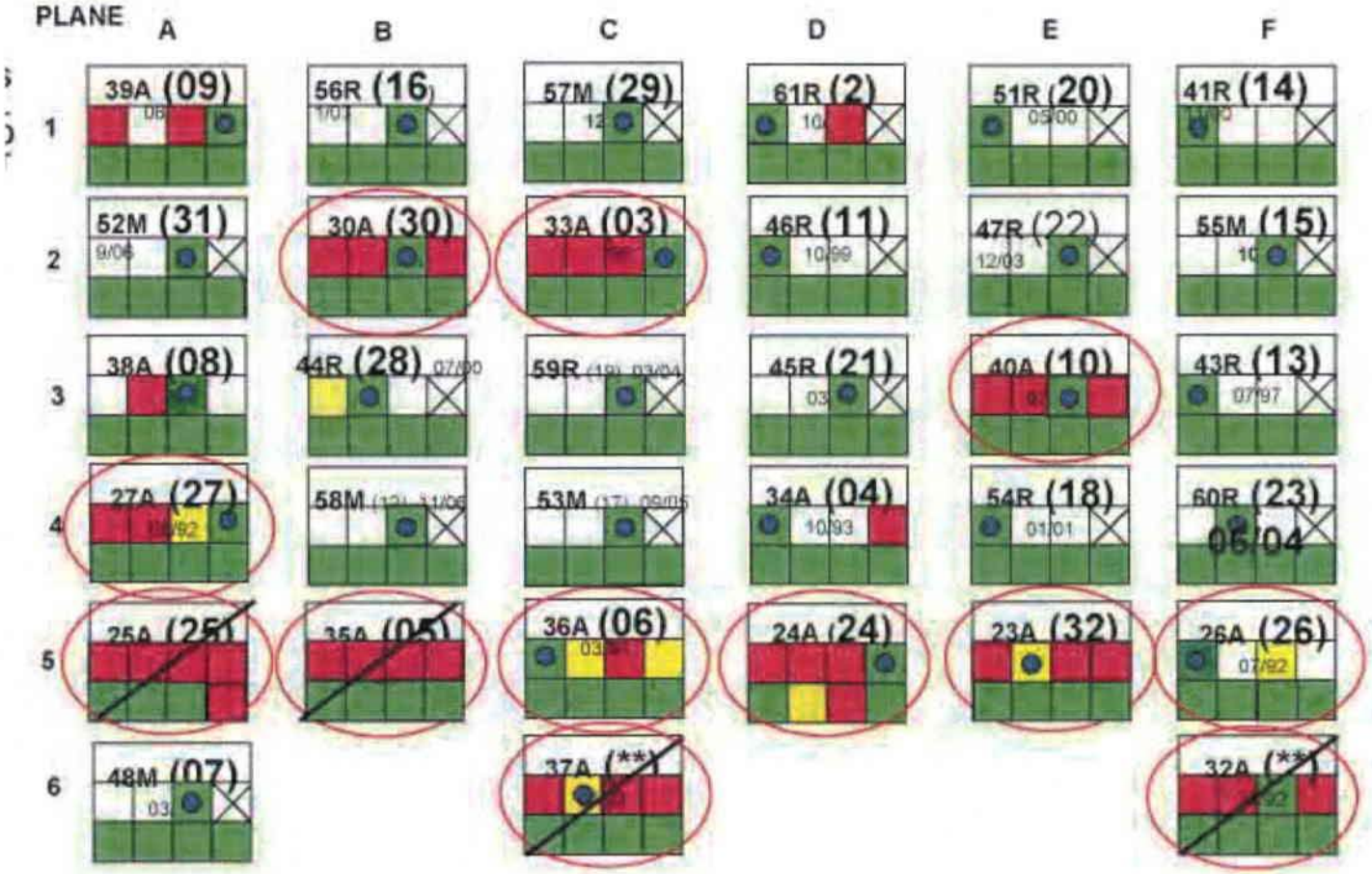
Watch List

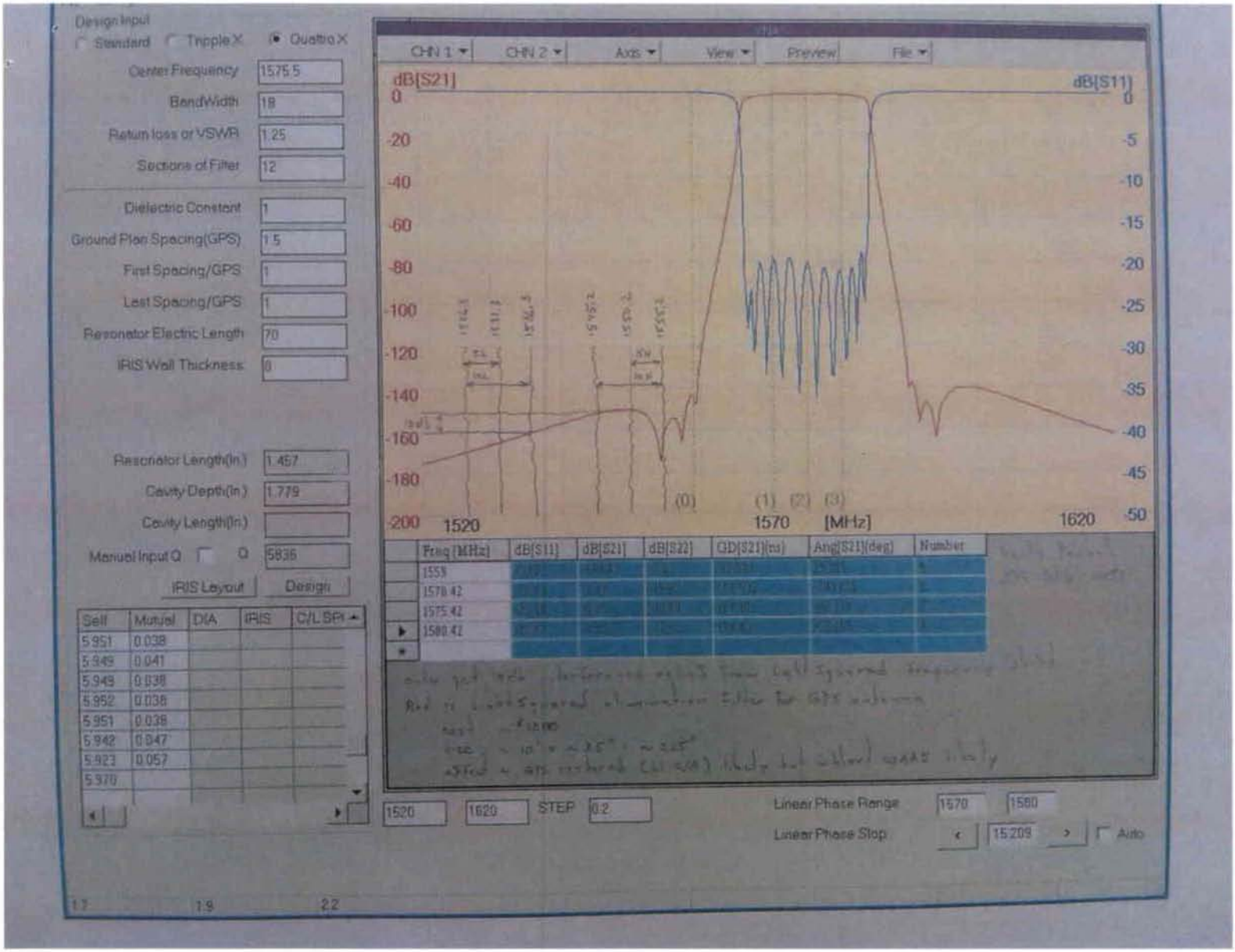
Clock*

SVN (PRN)	1	2	3	4
1	2	3	4	

Wheel
* II/IIA = Rb, Rb, Cs, Cs
IIR = Rb, Rb, Rb
Diagonal Line = Unhealthy

Clock		Wheel
meets spec		functional
watch list		watch list
dead		dead
unused		unused
in use	●	




Design Input
Standard
Tripple X
Quattro X
Center Frequency 1575.5
BandWidth 18
Return loss or VSWR 1.25
Sections of Filter 12
Dielectric Constant 1
Ground Plan Spacing(GPS) 1.5
First Spacing/GPS 1
Last Spacing/GPS 1
Resonator Electric Length 70
IRIS Wall Thickness 0
Resonator Length(In.) 1.467
Cavity Depth(In.) 1.779
Cavity Length(In.)
Manual Input Q
Q 5836
IRIS Layout
Design
Self Mutual DIA IRIS C/L Spa
5.951 0.038
5.949 0.041
5.949 0.038
5.952 0.038
5.951 0.038
5.942 0.047
5.923 0.057
5.970
CH1 1
CH2 2
Axis
View
Preview
File
dB[S21]
dB[S11]
0
-20
-40
-60
-80
-100
-120
-140
-160
-180
-200
0
-5
-10
-15
-20
-25
-30
-35
-40
-45
-50
1520
1570
[MHz]
1620
(0) (1) (2) (3)
Freq [MHz] dB[S11] dB[S21] dB[S22] GD[S21](ns) Ang[S21](deg) Number
1559
1570.42
1575.42
1580.42
1520
1620
STEP 0.2
Linear Phase Range 1570 1580
Linear Phase Slop 15.209
Auto
1.7
1.9
2.2